

CLAIMS

1. A filter system having at least two filter elements for use in an electronic equipment enclosure comprising:

an air flow path formed through said enclosure;

a first filter element mounted to said enclosure such that air in said air flow path moves through said first filter element; and

a second filter element mounted to said enclosure downstream of said first filter element such that air in said air flow path passing through said first filter element thereafter passes through said second filter element, said first filter element structured to protect said second filter element and extend the useful life of said second filter element.

2. The system as claimed in claim 1 wherein:

said first filter element is structured to filter particulate matter from the air of said air flow path; and

said second filter element is structured to filter water vapor from the air of said air flow path.

3. The system as claimed in claim 1 wherein:

said first filter element is less expensive than said second filter element.

4. The system as claimed in claim 1 wherein:

said first filter element is structured to be easier to clean than said second filter element.

5. The system as claimed in claim 1 wherein:

said first filter element is positioned for easier access than said second filter element.

6. The system as claimed in claim 1 wherein:
said first filter element is structured to filter particulate matter from the air of said air flow path;
said second filter element is structured to filter water vapor from the air of said air flow path; and
said first filter element is positioned for easier access than said second filter element.
7. The system as claimed in claim 6 wherein:
said first filter element is less expensive than said second filter element.
8. The system as claimed in claim 7 wherein:
said first filter element is structured to be easier to clean than said second filter element.
9. The system as claimed in claim 1 wherein:
said first filter element is an ASHRAE or HEPA filter element.
10. The system as claimed in claim 1 wherein:
said second filter element is a PTFE filter element.
11. The system as claimed in claim 2 wherein:
said first filter element is an ASHRAE or HEPA filter element.
12. The system as claimed in claim 11 wherein:
said second filter element is a PTFE filter element.
13. The system as claimed in claim 5 wherein:
said first filter element is an ASHRAE or HEPA filter element.

14. The system as claimed in claim 13 wherein:
said second filter element is a PTFE filter element.
15. The system as claimed in claim 3 wherein:
said first filter element is an ASHRAE or HEPA filter element.
16. The system as claimed in claim 15 wherein:
said second filter element is a PTFE filter element.
17. The system as claimed in claim 16 wherein:
said first filter element is structured to be easier to clean than said second filter
element; and
said first filter element is positioned for easier access than said second filter
element.
18. The system as claimed in claim 1 including:
a sensor for indicating that said first filter element should be cleaned or replaced.
19. The system as claimed in claim 1 including:
a sensor mounted to said housing for monitoring air flow resistance along said air
flow path and for providing a signal indicating a predetermined resistance to air flow along said
air flow path; and
a control mounted to said housing and responsive to said signal for altering the
operation of a fan creating said air flow.
20. The system as claimed in claim 19 wherein:
said control causes said fan to increase rotational velocity to attempt clearing any
clogging of said filter elements.

21. The system as claimed in claim 20 wherein:
said control causes said fan to reverse rotational direction.
22. The system as claimed in claim 21 wherein:
said control causes said fan to increase rotational velocity before reversing rotational direction.
23. The system as claimed in claim 22 wherein:
said control cycles said fan between increasing rotational velocity and reversing rotational direction.
24. The system as claimed in claim 23 wherein:
said first filter element is structured to filter particulate matter from the air of said air flow path; and
said second filter element is structured to filter water vapor from the air of said air flow path.
25. The system as claimed in claim 24 wherein:
said first filter element is positioned for easier access than said second filter element.
26. The system as claimed in claim 24 wherein:
said first filter element is structured to be easier to clean than said second filter element.